



**ENGINEERING CHECKS**

**AGER 2 CLASS**

# AUXILIARIES (AX) PRE-UNDERWAY PHASE AGER 2

5811	ANCHOR WINDLASS (Inport Drop Test)	
Component/Sub-Component	Proposed Procedure	Accepted Procedure
Inspect Tech Manual Support		
Inspect PMS Support		
Inspect posted operating/safety instructions and lubrication data		
Inspect fluid samples		
Inspect for proper HPU fluid levels		
Inspect for proper lubrication of mechanical components		
Inspect Gauge Calibration		
Inspect relief valve data is properly posted		
Inspect all flex hoses are properly tested and labeled		
Inspect mechanical brake operator linkages		
Inspect stroke control linkages		
Inspect flange shields		
Inspect for adequate nitrogen charge for windlass		
Inspect speed limiter		
Inspect for adequate LP air pressure for chain compressor		
Inspect capstan/wildcat brake assembly – mechanical brake components (worm gear end cap as required).		
Inspect electric brake		
Inspect filter differential indications		
Inspect HPU mechanical seal leakage		
Test Compensating Relief Valve is properly set		
Test - Conduct Inport Anchor Drop test		
- Inspect Servo/Replenishment Pressures during wildcat operation		
- Inspect Chain Compressor operation		
- Inspect Anchor drops from the hawsepipe		
- Test electric brake operation		

- Inspect reduction gear lubrication (gauges/sight flows/dipsticks)		
Test crossover valve operation		
Test wildcat/windlass solenoid switch		
Test Main Relief Valve lifts correctly		

5600 / 5611	STEERING (Inport System Verification)	
Component/Sub-Component	Proposed Procedure	Accepted Procedure
Inspect Tech Manual and EOSS Support		
Inspect PMS Support		
Inspect operating/safety instructions and hydraulic system/electrical wiring diagrams are posted		
Inspect proper fluid levels		
Inspect hydraulic oil fill connections are properly labeled		
Inspect fluid samples		
Inspect Gauge Calibration		
Inspect rudder stock grounding straps		
Inspect filter indicators		
Inspect Servo/Replenishment Pressures are correct		
Inspect all flex hoses are properly tested/labeled		
Inspect flange shields are properly installed		
Test N2 accumulators are properly charged		
Test the trick wheel stops		
Inspect the crush block clearances		
Test the rudder follow up error (1 deg increments at 0 to 5 deg; 5 deg increments at 5 to 25 deg)		
Test ABT operation		
Test compensator relief valve settings		
Test main relief valve settings		
Test (inport) rudder swing checks		
Test (inport) blocking valve		
Test auxiliary emergency steering pump		
Test manual emergency steering system		
Inspect ram for scoring		
Test steering casualty alarm		
Test pump remote operation and transfer of controls to pilot house		
Test for static rudder split (pilot house in control)		
Test for indicator error (pilot house in control)		

<b>A-002/105-11</b>	<b>EMERGENCY/SHIP'S SERVICE DIESEL GENERATORS</b>	
Component/Sub-Component	Proposed Procedure	Accepted Procedure
Inspect Engine Sump Level		
Inspect Turbocharger Sump Level		
Inspect Start Air Lubricator Oil Level		
Inspect Governor Oil Level		
Inspect Lube Oil Sample		
Inspect J/W Expansion Tank Level		
Inspect "Do not open access..." and Expansion Tank warning "Poison..." are posted		
Inspect/test fuel valve trip		
Inspect Relief Valves		
Inspect Flange Shielding		
Inspect For Exhaust Leaks		
Inspect Filters, Strainers		
Inspect Governor and Fuel Linkage for Binding		
Inspect J/W Standby Pump		
Test Blow In Damper		
Test pre-lube system operation		
Test Jacket Water High Temp Alarm		
Test Lube Oil Filter High DP Alarm		
Test low lube oil pressure alarm		
Test Remote Shut Down		
Test Local Shut Down		
Test Barring Device Interlock		
Test Engine Blow Down		
Test Local Pneumatic start		
Test dead bus auto start		
Test Overspeed Trip		
Test 80% load for 15 minutes		
Inspect for fuel/lube oil leaks		
Inspect pyrometer operation		
Inspect manometer		
Inspect sea water cooling pump		
Test high water/generator bearing temp alarm		

<b>5512 / 5513 / 5515</b>	<b>LOW and MEDIUM PRESSURE AIR SYSTEM</b>	
Component/Sub-Component	Proposed Procedure	Accepted Procedure
Inspect Tech Manual and EOSS Support		
Inspect PMS Support		
Inspect Gauge Calibration		
Inspect operating/safety instructions are posted		
Inspect compressor oil level and oil samples		
Test compressor pressures and temperatures		
Test compressor capacity control system		
Inspect compressor belt condition		
Test compressor auto control and safety switches		
a. Operational control switches (115/120/125)		
b. Low oil pressure		
c. High discharge pressure		
d. High air and water temp		
Inspect all relief valve testing is within periodicity		
Inspect location of intake/vent supply		
Inspect receiver flask certification		
Test priority valve operation		
Inspect sea water cooling system		
Inspect 50/50 mixture of ethylene glycol		
Test type I and type II dehydrator operation		
a. Gauge calibration		
b. Tower operation		
c. Purge air pressure		
d. Automatic drain operation		
e. Dew point		
f. Inspect PMS and Tech Manual support		

5511 / 5515	HIGH PRESSURE AIR SYSTEM	
Component/Sub-Component	Proposed Procedure	Accepted Procedure
Inspect Tech Manual and EOSS Support		
Inspect PMS Support		
Inspect Gauge Calibration		
Inspect operating/safety instructions are posted		
Inspect compressor oil level and oil samples		
Test compressor auto control and safety switches		
a. Start / Stop switch		
b. Low oil pressure switch		
c. Jacket water temp switch		
d. Compressor temp/pressure monitor operation		
Inspect compressor pressures and temperatures		
Inspect compressor drive belt condition		
Inspect condensate monitoring/drain system		
Inspect all flex hoses are properly tested/labeled		
Inspect all relief valve testing is within periodicity		
Inspect HP air flask certification		
Inspect sea water cooling system		
Inspect air intake/ventilation supply location		
Inspect all HP/LP air reducing stations		
Inspect fresh water pump belts		
Inspect capacity		
Inspect oil wipers		
Inspect pressure regulator valve		
Inspect 50/50 mixture of ethylene glycol		
Inspect seals for oil leaks		

5210	FIRE PUMPS (ELECTRIC and STEAM)	
Component/Sub-Component	Proposed Procedure	Accepted Procedure
Inspect Tech Manual and EOSS Support		
Inspect PMS Support		
Inspect Gauge Calibration		
Inspect Transducer Calibration		
Inspect Coupling Guard		
Inspect relief valves are within periodicity		
Test remote start/stop functions		
Test local start/stop functions		
Inspect pump operation/design discharge pressure, unusual noise, bearing temps, etc.		
Test the over speed trip (STEAM)		
Test the speed limiting governor (STEAM)		
Test the turbine auxiliary lube oil pump low-pressure automatic start switch operation (STEAM)		
Inspect lube oil filter indications and oil level (STEAM)		
Test combination exhaust and relief valve (STEAM)		
Inspect the packing and mechanical seal leakage		
Inspect for ferrous fasteners		
Inspect the resilient mounts		
Inspect condition of expansion joints		
Inspect all flex hoses are properly tested/labeled		
Inspect piping lagging		
Inspect grounding straps		
Test remote operated suction/discharge valves		
Inspect the suction strainer		

<b>5240</b>	<b>SEAWATER SERVICE PUMPS</b>	
Component/Sub-Component	Proposed Procedure	Accepted Procedure
Inspect Tech Manual and EOSS Support		
Inspect PMS Support		
Inspect Gauge Calibration		
Inspect Transducer Calibration		
Inspect Coupling Guard		
Test remote start/stop functions		
Test local start/stop functions		
Inspect pump operation/design discharge pressure, unusual noise, bearing temps, etc.		
Inspect packing and mechanical seal leakage		
Inspect for ferrous fasteners		
Inspect foundation and resilient mounts		
Inspect condition of expansion joints		
Inspect all flex hoses are properly tested/labeled		
Inspect piping lagging		
Inspect grounding straps		
Test remote operated suction/discharge valves		
Inspect the suction strainer		
Test the firemain to seawater reducing station operation, condition and relief valve test periodicity		

<b>5140</b>	<b>AIR CONDITIONING PLANTS</b>	
Component/Sub-Component	Proposed Procedure	Accepted Procedure
Inspect EPA certifications		
Inspect Tech Manual and EOSS Support		
Inspect PMS Support		
Inspect Gauge Calibration		
Inspect operating/safety instructions are posted		
Inspect compressor oil level and oil samples		
Inspect warning at entrance (Freon usage) posted		
Inspect Refrigerant logs		
Test halocarbon monitor operation		
Test capacity control system operation		
Test calibration of safety shutdowns/alarms		
a. HP/LP pressure switches		
b. C/W, S/W flow/press/temp switches		
c. Low refrigerant temp switch		
d. Low oil pressure switch		
Inspect moisture indicators		
Test compressor operation (parameters, suct/disch valves)		
Test for leaks (oil/freon/water)		
Inspect chilled water pump		
a. suction valve		
b. discharge valve		
c. mechanical seal		
Inspect chilled water expansion tank		
a. Proper operating level		
b. Filling pipe air gap		
c. Relief valves and vacuum breakers		
d. Hose disconnects and warning sign		
Test PPU		
Inspect recovery unit (Inventory Item)		
Inspect for available vacuum pump		
Inspect sea water system		
a. Pump operation		
b. Zincs and nylon tube inserts present		
c. Condenser header condition		
d. Seawater Regulating valve		
Inspect motor controller		
Inspect coupling guard		
Inspect resilient mounts		

Inspect flex hoses		
<b>AUXILIARIES (AX)</b> <b>UNDERWAY DEMO PHASE</b>		
<b>5811</b>	<b>ANCHOR WINDLASS DROP AND RETRIEVAL DEMONSTRATION</b>	
Component/Sub-Component	Proposed Procedure	Accepted Procedure
Test – Conduct Anchor Drop and Retrieval test		
- Inspect Servo/Replenishment and Main Relief Pressures during wildcat operation		
- Inspect Anchor drops from the hawsepipe		

<b>5600 / 5611</b>	<b>STEERING DEMONSTRATION</b>	
Component/Sub-Component	Proposed Procedure	Accepted Procedure
Inspect proper fluid levels		
Inspect correct Servo/Replenishment pressures		
Test – Demonstrate timed rudder swing checks/ blocking valve test Ahead (as per provided procedure)		
Test - Demonstrate timed rudder swing checks/ blocking valve test Astern (as per provided procedure)		
Inspect for dynamic rudder split from helm indicator		

<b>5331</b>	<b>WATER HEATERS</b>	
Component/Sub-Component	Proposed Procedure	Accepted Procedure
Inspect Tech Manual and EOSS Support		
Inspect PMS Support		
Inspect list of heaters onboard and spaces hot water services (berthing/laundry/galley)		
Inspect gauge calibration		
Inspect outlet temp at heater (verify operation)		
Inspect relief valve test data		
Inspect relief valve drain piping		
Inspect cold water inlet pipe for check valve		
Test high temp switch setting		
Test high temp switch warning light		
Inspect lagging condition		
Inspect for steam / water leaks		
Inspect Temp Reg Valve for locking device		
Inspect heater foundation		
Test water temp at basin/spigot		

<b>5351</b>	<b>STEAM RISER and COPPER SERVICE STEAM PIPING</b>	
Component/Sub-Component	Proposed Procedure	Accepted Procedure
Inspect Gauge calibration		
Inspect PMS Support		
Inspect warning placard posted – warning bleed pressure before disconnecting...		
Inspect piping/valve condition and operation		
Inspect protective cover		
Inspect relief valve for test data		
Inspect overall area preservation		
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Inspect ship has reviewed NAVSEA Wash DC R 130557Z FEB 01 concerning copper piping		
Inspect the ship has established an inspection program IAW NAVSEA message		
Inspect - Conduct a walkthrough of all copper service steam piping to check for leaks IAW NAVSEA message		

5315	WATER PRODUCTION DEMONSTRATION – REVERSE OSMOSIS	
Component/Sub-Component	Proposed Procedure	Accepted Procedure
Inspect Tech Manual Support		
Inspect PMS Support		
Inspect relief valves are within periodicity		
Inspect HP pump oil level		
Inspect flexible hose condition and test tag		
Test salinity dump valves		
Test salinity panel		
Inspect Accumulator Pressure		
Test the operation of the product and brine flowmeters		
Test – Demonstrate 80% water production capability during the 4 Hour Water Production Demonstration		
- Inspect RO to ensure the unit has not been set to produce above maximum recommended capacity (discharge pressure setting, production and sea water injection temperature diagram curve and tables)		
- Inspect the operating panel for alarm / unusual conditions.		
- Inspect 3 and 20 micron filter differential pressure		
- Inspect all fittings and connections for leaks		
- Inspect demineralizer operation		
Inspect freshwater flush		

5311	WATER PRODUCTION DEMONSTRATION – FLASH TYPE EVAPS	
Component/Sub-Component	Proposed Procedure	Accepted Procedure
Inspect PMS and Tech Manual support		
Inspect gauge calibration		
Test flow meter		
Inspect evaporator shell (sight glasses, diffuser cap and scale buildup)		
Test salinity dump valves		
Test interlock device between potable water and feed water valves		
Inspect feed pump (labeled, packing gland, foundation, seal / gland cavity)		
Inspect brine pump (labeled, packing gland, foundation, seal / gland cavity)		
Inspect distillate pump (labeled, packing gland, foundation, seal / gland cavity)		
Inspect brine pump (labeled, packing gland, foundation, seal / gland cavity)		
Inspect heater drain pump (labeled, packing gland, foundation, seal / gland cavity)		
Inspect flexible hose condition and test tag		
Inspect feedwater strainer (foundation and basket)		
Inspect pipe labeling and lagging condition		
Test – Demonstrate 80% water production capability during the 4 Hour Water Production Demonstration		

8543	DUMBWAITER	
Component/Sub-Component	Proposed Procedure	Accepted Procedure
Inspect Tech Manual and EOSS Support		
Inspect PMS Support		
Inspect posted operating/safety instructions at each station		
Inspect posted lubrication chart at top station		
Inspect trunk bi-parting doors		
Inspect machinery access cover bolts & nuts		
Inspect machinery oil level		
Inspect hoist machinery mounting hardware		
Inspect hoist drum		
Inspect hoist wire rope and end fittings		
Test slack rope device and limit switch		
Test the hoist brake		
Test the up over travel limit switch		
Test the up deck level limit switch		
Test trunk bi-parting door limit switch		
Inspect car broken rope device		
Inspect car bi-parting door assembly		
Inspect car for missing components		
Test lower level trunk bi-parting doors and limit switch		
Test down over travel limit switch		
Test down level limit switch		
Inspect trunk buffer springs		
Test E-call and sound powered phone system when installed		
Inspect clean out cover mounting hardware		
Inspect motor controller for loose leads, posted placards, grounds and correct fuses		
Inspect dumbwaiter trunk for preservation and cleanliness		
Inspect guide rails		
Test each control station E-stop button		

8543	PACKAGE CONVEYOR	
Component/Sub-Component	Proposed Procedure	Accepted Procedure
Inspect Tech Manual and EOSS Support		
Inspect PMS Support		
Inspect posted operating/safety instructions (two man rule/ do not ride) at each station		
Inspect posted lubrication chart at top station		
Test for audible warning when starting conveyor		
Inspect that all station doors are locked		
Inspect that all station controllers are locked		
Test door interlock system		
Inspect load/unloader at each station		
Test door cannot close when loader/unloader is in horizontal or 30 deg inclined position		
Test loader/unloader down interlock switch at each station below upper most level		
Test jam limit switch at each station		
Inspect safety shields are properly installed		
Test up-over travel switch/device operation		
Test clean out door interlock switch if applicable		
Test down overtravel device and switch		
Test indexing feature		
Test E-stop and run/stop buttons at all stations		
Inspect proper florescent lighting at each station		
Inspect trunk shielding and mounting hardware		
Inspect trunk guide rails		
Inspect conveyor trunk for preservation/cleanliness		
Inspect all carrier trays are installed and tight		
Test all station growlers and phone circuits are functional and headsets are present		
Inspect conveyor has been load tested within the last five years to include weight test data		
Inspect speed reducer is filled to proper level with oil		
Inspect drive, driven and carrier chains are properly tensioned		
Test bite panel for correct components and proper operation		
Inspect motor controller for loose leads, posted placards, grounds and correct fuses		
Inspect drive machinery for missing/loose components		



5161	REFRIGERATION PLANTS	
Components/Sub-Components	Proposed Procedure	Accepted Procedure
Inspect EPA certifications		
Inspect Tech Manual and EOSS Support		
Inspect PMS Support		
Inspect Gauge Calibration		
Inspect operating/safety instructions are posted		
Inspect compressor oil level and oil samples		
Inspect warning at entrance (Freon usage) posted		
Inspect Refrigerant logs		
<b>Test halocarbon monitor operation</b>		
Test capacity control system operation (vent plug)		
Test calibration of alarm / shutdowns		
a. HP / LP pressure switches		
b. Sea water flow / pressure switch		
Test compressor operation (parameters, suction/discharge valves)		
Inspect for piping suppressors		
Inspect for leaks (oil/freon/sea water)		
Inspect refrigerant recovery system/vacuum pumps		
Inspect sea water system (pump operation, zincs, nylon tube inserts, and condenser header)		
Test chill/freezer boxes for fan operation, lighting, coil condition and curtains		
Inspect ventilation (flow/location/indicators and alarms)		

6641	FAN ROOMS	
Component/Sub-Component	Proposed Procedure	Accepted Procedure
Inspect deck condition		
- No standing water		
- Deck rusted / exfoliated		
- Deck drain not installed		
- Deck drain missing, not secured within deck socket or inoperative		
Inspect deck/bulkheads have no painted over rust		
Inspect lighting is operative and covers installed		
Inspect adequate lighting present in space		
Inspect vent duct condition		
- Access covers present		
- Access cover fasteners not rusted/missing		
- Duct interior is clean		
Inspect correct vent/piping system labeling		
Inspect fan motor installed correctly (flow)		
Inspect filters are clean and can be easily removed		
Inspect filter DP gauge is operative		
Inspect vent heating element is operative and not deteriorated		
Inspect cooling coils are clean		
Inspect thermostatic controls are calibrated, connected and operational		
Inspect the cooling coil drain is piped to the deck drain and is not clogged		
Inspect the proper color coding of piping		
Inspect that all hand wheels are present		
Inspect for damaged / missing lagging		
Test the C/W or steam solenoids are operational		
Inspect for chilled water / steam leaks		
Inspect for bull's eye and CCOL in space		
Inspect for any unauthorized stowed material		
Inspect for any unauthorized flammables		
Inspect the filter cleaning shop		

5331	POTABLE WATER PUMPS	
Component/Sub-Component	Proposed Procedure	Accepted Procedure
Inspect Tech Manual and EOSS Support		
Inspect PMS Support		
Inspect Gauge Calibration		
Inspect Transducer Calibration		
Inspect Coupling Guard		
Test local start/stop functions		
Inspect pump operation/design discharge pressure, unusual noise, bearing temps, etc.		
Inspect packing and mechanical seal leakage		
Inspect for ferrous fasteners		
Inspect foundation and resilient mounts		
Inspect all flex hoses are properly tested/labeled		
Inspect grounding straps		

# ELECTRICAL (EL) PRE-UNDERWAY PHASE AGER 2

	<b>SHIPS SERVICE DIESEL GENERATORS</b>	
COMPONENT/SYSTEM	PROPOSED PROCEDURE	ACCEPTED PROCEDURE
Test Dead Bus Start Pick-Up		
Test reverse power relays		
Test parallel operation		
Test Auto/Manual Load Shedding		
	<b>400 HERTZ DISTRIBUTION SYSTEM (MOTOR GENERATOR)</b>	
COMPONENT/SYSTEM	PROPOSED PROCEDURE	ACCEPTED PROCEDURE
Test split and parallel operation		
	<b>TELL-TALE PANEL/NAVIGATION SIGNAL LIGHT PANEL</b>	
COMPONENT/SYSTEM	PROPOSED PROCEDURE	ACCEPTED PROCEDURE
Test navigational lighting panel		
Test signal light panel.		
Measure insulation resistance of electrical circuits		
	<b>ANNOUNCING SYSTEMS</b>	
COMPONENT/SYSTEM	PROPOSED PROCEDURE	ACCEPTED PROCEDURE

Test general, chemical, and collision alarms from all stations		
Test 1MC from all stations		
Test 1 MC Oscillator.Amplifier		
Test 6MC operation		
Test 21MC operation		
	<b>DEGAUSSING SYSTEM</b>	
COMPONENT/SYSTEM	PROPOSED PROCEDURE	ACCEPTED PROCEDURE
Conduct linearity test		
Conduct on line ground test.		
Inspect degaussing folder		
	<b>AUTOMATIC BUS TRANSFER EQUIPMENT</b>	
COMPONENT/SYSTEM	PROPOSED PROCEDURE	ACCEPTED PROCEDURE
Test all main and auxiliary space vital power and lighting ABTs		
	<b>EVAPORATORS</b>	
COMPONENT/SYSTEM	PROPOSED PROCEDURE	ACCEPTED PROCEDURE
Test dump valve operation		
	<b>EVAPORATORS</b>	
COMPONENT/SYSTEM	PROPOSED PROCEDURE	ACCEPTED PROCEDURE
Test alarm settings		

	<b>WIND INDICATING SYSTEM</b>	
<b>COMPONENT/SYSTEM</b>	<b>PROPOSED PROCEDURE</b>	<b>ACCEPTED PROCEDURE</b>
Test System For Proper Operation		
	<b>ELECTRICAL PLANT CONTROL CONSOLE (EPCC)</b>	
<b>COMPONENT/SYSTEM</b>	<b>PROPOSED PROCEDURE</b>	<b>ACCEPTED PROCEDURE</b>
Test Console Lamps and Alarms		
	<b>THERMAL IMAGING SURVEY</b>	
<b>COMPONENT/SYSTEM</b>	<b>PROPOSED PROCEDURE</b>	<b>ACCEPTED PROCEDURE</b>
Commence thermal imaging throughout the ship  <b>NOTE:</b> Engineering vital equipment for getting underway will be surveyed first. Any controller, distribution fuse box, power panel and ABT surveyed above ambient temperature of 40 degrees centigrade and above must be repaired prior to getting underway.		

<b>ELECTRICAL (EL) UNDERWAY PHASE AGER 2</b>	
<b>NOTE:</b> Electrical Underway Checks Consist Mainly Of Space Walk-Through Throughout The Ship And Thermal Imaging Survey	
In each space inspect the following if applicable:	
	<b>(INSPECT) ELECTRICAL SAFETY</b>

<b>COMPONENT/SYSTEM</b>	<b>PROPOSED PROCEDURE</b>	<b>ACCEPTED PROCEDURE</b>
Were flat irons a high-grade commercial type with a three pronged cord?		
Were Ironing Board Stations in berthing space modified to remove spotlight and fill the access hole? Ensure irons are not hardwired.		
Have electronic and electrical shorting probes been modified by installing a nylon screw in the end of the probe and soldering the clip to the conductor?		
Are portable tools/devices not stamped "Double Insulated" or equipped with a three pronged cord?		
Were Hospital grade plugs used on portable equipment?		
	<b>(INSPECT) FUSE BOXES</b>	
<b>COMPONENT/SYSTEM</b>	<b>PROPOSED PROCEDURE</b>	<b>ACCEPTED PROCEDURE</b>
Are fuses pulled from designated circuits without danger tags affixed?		
Are there loose or missing locking nuts or gear adrift?		
Are circuits properly labeled for easy identification?		
Are there any bent, twisted, misaligned, or broken fuse clips?		
Is the interior rusty or dirty?		
Are fuses of the correct amperage and voltage installed?		

	(INSPECT) FUSE BOXES	
COMPONENT/SYSTEM	PROPOSED PROCEDURE	ACCEPTED PROCEDURE
Are circuits fed from one set of fuses (except battle lantern circuits) multiple?		
Are fuse clips phosphor-bronze instead of silver plated?		
Were door hinges broken?		
Are non-silver ferruled fuses installed?		
Are SHAWMUT "AMP-TRAP" current limiters installed in place of fuses?		
Is clearance provided to permit complete accessibility for maintenance, repair, renewal of fuses, and testing?		
	(INSPECT) POWER PANELS	
COMPONENT/SYSTEM	PROPOSED PROCEDURE	ACCEPTED PROCEDURE
Were access holes left in panels after removal of circuit breakers?		
Do labels specify the proper information?		
Depress ground detector push buttons, were any grounds indicated?		
Do Breaker ratings match the circuit label current rating?		

Are multi-phase circuits missing breaker connecting handles?		
Were power panels located inside galley spaces?		
Is clearance provided to permit complete accessibility?		
	(INSPECT) MOTOR CONTROLLERS	
COMPONENT/SYSTEM	PROPOSED PROCEDURE	ACCEPTED PROCEDURE
Were interiors dirty, rusty, deteriorated, or contained gear adrift?		
Were wiring diagrams, schematics or overload heater tables missing?		
Was controller electrical wiring properly banded?		
Were Start, Stop, "Emergency Run" or Reset buttons seized, missing or inoperative?		
Were rubber boots cracked, torn or missing?		
Were overload relay heaters properly sized and adjusted to provide adequate protection for the motor?		
Were switches protected against inadvertent activation?		
Were controllers with multiple power sources properly labeled?		

	<b>(INSPECT) MOTOR CONTROLLERS</b>	
<b>COMPONENT/SYSTEM</b>	<b>PROPOSED PROCEDURE</b>	<b>ACCEPTED PROCEDURE</b>
Were controllers and remote operating stations properly labeled?		
Is clearance provided to permit complete accessibility for operation, maintenance, repair, renewal of fuses, and testing?		
	<b>(INSPECT) LIGHTING</b>	
<b>COMPONENT/SYSTEM</b>	<b>PROPOSED PROCEDURE</b>	<b>ACCEPTED PROCEDURE</b>
Were darken ship switches operative and adjusted properly?		
Were light fixtures, guards, and covers securely mounted?		
Were over-sized lamps installed in lighting fixtures?		
Were light fixtures missing lenses, protective guards, or faceplates?		
Did diesel module room have adequate lighting?		
Were spray-tight fixtures adequately protected against water intrusion?		
Was bunk lighting cable hanging, or not routed through the inside of bunk stanchions?		

Were plastic-cased bunk light reflectors and toggle switches properly grounded?		
	<b>(INSPECT) BATTLE LANTERNS</b>	
<b>COMPONENT/SYSTEM</b>	<b>PROPOSED PROCEDURE</b>	<b>ACCEPTED PROCEDURE</b>
Were relay-operated lanterns installed in sufficient number?		
Are lanterns installed with suitable bracket assemblies to prevent removal of lantern?		
Were lanterns inoperative?		
Were test switches and relay frames grounded?		
	<b>(INSPECT) CABLING</b>	
<b>COMPONENT/SYSTEM</b>	<b>PROPOSED PROCEDURE</b>	<b>ACCEPTED PROCEDURE</b>
Was PVC cabling installed (new construction only)?		
Were dead-ended cables properly identified/terminated?		
<b>Were useless or improperly installed cables removed?</b>		
Was cabling properly supported, routed or were nylon wire ties being utilized?		
Were cables pulling out of equipment?		
Were cables improperly spliced?		

	<b>(INSPECT) CABLING</b>	
<b>COMPONENT/SYSTEM</b>	<b>PROPOSED PROCEDURE</b>	<b>ACCEPTED PROCEDURE</b>
Were cables protected against being handholds or being stepped on?		
Was cabling run through beams without the use of chaffing rings?		
Was cabling running through metal partitions equipped with grommets?		
Was cabling on weather decks and engineering spaces deteriorated?		
Were cable stuffing tubes properly assembled ?		
Were multiple cables running through one stuffing tube?		
Were multi-cable penetrators installed in Flammable Liquid Storerooms?		
	<b>(INSPECT) CASUALTY POWER CABLES</b>	
<b>COMPONENT/SYSTEM</b>	<b>PROPOSED PROCEDURE</b>	<b>ACCEPTED PROCEDURE</b>
Were cable ends properly terminated?		
Were cables deteriorated from age, heat, and humidity?		
Were normally energized power terminals labeled?		

Were racks properly identified as to number/length of cables assigned to the rack?		
Is there a label attached at the end of the cable to indicate the length and stowage rack number?		
Are cable leads properly identified for phase identification?		
Was miscellaneous gear stowed on casualty cable racks?		
Were cable ferrules missing or heavily oxidized?		
Was an improper number/length of cable installed on a cable rack?		
Were wrenches missing from terminals?		
Were covers installed on power terminals?		
	<b>(INSPECT) WORKBENCHES</b>	

COMPONENT/SYSTEM	PROPOSED PROCEDURE	ACCEPTED PROCEDURE
Was the electrical workbench properly installed, to include: <ul style="list-style-type: none"> <li>- <b>Front panel, Side Panel, Back panel and Knee-hole Insulation.</b></li> <li>- Disconnect Switch properly installed and labeled.</li> <li>- 48-inch ground strap for every 4 feet of workbench.</li> <li>- 5KVA isolation transformer installed.</li> <li>- Safety Placards.</li> </ul>		
(INSPECT) BATTERY LOCKERS		
COMPONENT/SYSTEM	PROPOSED PROCEDURE	ACCEPTED PROCEDURE
Was a Battery Log maintained?		
Test electrical interlock between exhaust ventilation and battery charger?		
Are Alkaline and Lead Acid Batteries being serviced in the same facility?		
Is each locker provided with: <ul style="list-style-type: none"> <li>- Rubber Gloves and Aprons.</li> <li>- Goggles.</li> <li>- Two battery fillers.</li> <li>- Two battery test sets.</li> <li>- One soda water container.</li> </ul>		
Does the locker contain an eye wash station and a deluge shower?		

Are battery storage racks greater than 12 inches between tiers?		
Were battery hold-down clamps provided?		
Are Acids stored in appropriate protective containers?		
Are battery charger plugs and jacks marked NEG. and POS.?		
(INSPECT / TEST) SHORE POWER SYSTEM		
COMPONENT/SYSTEM	PROPOSED PROCEDURE	ACCEPTED PROCEDURE
Is shore power being properly rigged?		
Did shore power shunt trip interlocks trip its associated breakers when tested?		
Was shore power system cabling between the receptacles and the ship's switchboard insulation resistance within EOSS or PMS limits?		
Were shore power indicating lights operative, white in color, and all screws installed?		
Was there pigtail stowage installed?		



Does the shore power system meet the current standards: <ul style="list-style-type: none"> <li>- <b>Have a Viking Connector System.</b></li> <li>- <b>Have AQB-LF 400 Amp Circuit Breaker with shunt trip.</b></li> <li>- Have phase sequencing and phase orientation devices.</li> <li>- Have power available lights at switchboard and shore power connection box.</li> </ul> Have installed ammeter and selector switch to monitor total shore power current.		
<b>(INSPECT) BUS TRANSFER EQUIPMENT</b>		
<b>COMPONENT/SYSTEM</b>	<b>PROPOSED PROCEDURE</b>	<b>ACCEPTED PROCEDURE</b>
Were Automatic Bus Transfer Devices operating properly?		
<b>(INSPECT) BUS TRANSFER EQUIPMENT</b>		
<b>COMPONENT/SYSTEM</b>	<b>PROPOSED PROCEDURE</b>	<b>ACCEPTED PROCEDURE</b>
Were ABT's installed for the following: <ul style="list-style-type: none"> <li>- Emergency Lighting.</li> <li>- IC Switchboard and panels.</li> <li>- Steering power panel.</li> <li>- Pumps associated with the main and auxiliary machinery plant having Low Voltage Release (LVR) control.</li> <li>- Fire pumps.</li> <li>- Fire extinguishing auxiliaries and controls.</li> </ul>		

Did ASCO ABT transfer switches have an electrical charge on the metal screw on the manual operator?		
Was the sliding interlock on manual bus transfer switches effective at preventing both breakers from being closed at the same time?		
Are feeder circuit breaker megger holes blanked off?		
Were Normal/Alternate source indicating lights operative?		
<b>(INSPECT) ELECTRICAL DISTRIBUTION EQUIPMENT</b>		
<b>COMPONENT/SYSTEM</b>	<b>PROPOSED PROCEDURE</b>	<b>ACCEPTED PROCEDURE</b>
Was electrical distribution equipment securely mounted?		
Electrical distribution equipment have loose or missing covers?		
Were control knobs or fasteners missing from electrical equipment?		
Was electrical equipment protected from water intrusion?		
Is electrical properly mounted or was it suspended solely by electrical cables?		
Were 440 multipurpose outlets properly phased?		

Did Standard Navy Receptacles (SNR) and Multi-Purpose Outlets (MPO) have an interlock switch or was the switch function such that the plug could not be removed from an energized receptacle?		
Were electrical receptacles broken or damaged?		
Were 400HZ AC, 60HZ AC, and DC convenience outlets labeled to prevent equipment being used with the wrong frequency?		
	<b>(INSPECT) MOTORS</b>	
<b>COMPONENT/SYSTEM</b>	<b>PROPOSED PROCEDURE</b>	<b>ACCEPTED PROCEDURE</b>
Were motor foundations properly preserved?		
Was resilient mounted electrical equipment grounded to the ships hull through ground straps?		
Did electrical rotating machinery have ball check grease fittings (zerk fittings) installed?		
Were coupling, belt, or chain guards effective?		
	<b>(INSPECT) MISCELLANEOUS EQUIPMENT</b>	
<b>COMPONENT/SYSTEM</b>	<b>PROPOSED PROCEDURE</b>	<b>ACCEPTED PROCEDURE</b>
Is permanently mounted electrical equipment hardwired to the ships electrical system?		
Is hardwired electrical equipment permanently mounted?		

Was more than 1 multi-purpose power strip connected to one isolated receptacle circuit?		
Is electrical equipment mounted on non-conducted surfaces properly grounded?		
Were Surge Protectors of the approved type?		
Are portable electric device power cords properly tinned?		
Are permanent-type safety precautions, operating instructions, high voltage warning signs, and resuscitation instructions installed where required?		
Is stowage in the electrical division adequate?		
Did electrical connection boxes have knockouts pushed in leaving access holes In the side?		
Are non-watertight connection boxes being used in engineering spaces?		
Was rubber matting oil soaked, cracked, punctured, perforated or had imbedded metal or conductive Particles?		

Did varnish Dip Tank meet installation specifications? <ul style="list-style-type: none"> <li>- No heat source within eight feet of tank.</li> <li>- Tank was fitted with explosion proof dedicated exhaust ventilation system.</li> <li>- Space ambient temperature was below the flashpoint of varnish (78 degrees Fahrenheit).</li> </ul> A portable AFFF fire extinguisher was installed		
Was accommodation ladder lighting of the proper type? (Not to use dress ship lights attached to gangway handrails)?		
Did dress ship lights have broken, missing, or incorrect guards?		
Were dress ship light receptacles labeled "Dress Ship Light Streamers. Not to be used for any other purpose"?		
Were panel switches controlling circuits that are de-energized during darkened ship operation marked DARKENED SHIP?		
Did engine room control console have three sources of power (normal, alternate, no-break)?		
Were bulkhead mounted electric heaters provided with protective screens?		
Were Electrical/IC test panels degraded or inoperable?		

	(INSPECT) MISCELLANEOUS EQUIPMENT	
COMPONENT/SYSTEM	PROPOSED PROCEDURE	ACCEPTED PROCEDURE
Did bracket mounted fans have a blade guard which would permit personnel to come in contact with the rotating blades?		
	(INSPECT) CATHODIC PROTECTION SYSTEM	
COMPONENT/SYSTEM	PROPOSED PROCEDURE	ACCEPTED PROCEDURE
Was the installed Cathodic Protection System operative and adjusted IAW PMS?		
Were the rudder grounding straps made of 1-1/2 inch Wide braided copper and brazed to the rudder stock and the hull?		
Were shaft grounding brushes correctly installed?		
Shaft grounding brushes exhibit full contact with the slip ring?		
Was brush rigging correctly installed?		
	(INSPECT) SHIP TELEPHONE SYSTEM	
COMPONENT/SYSTEM	PROPOSED PROCEDURE	ACCEPTED PROCEDURE
Was the system unreliable due to unresolved software or hardware deficiencies?		
	(INSPECT) SOUND POWERED TELEPHONE SYSTEMS	
COMPONENT/SYSTEM	PROPOSED PROCEDURE	ACCEPTED PROCEDURE
Were Sound Powered Telephone Circuit Amplifiers missing or inoperative?		

Were any Sound Powered Circuits below 50,000 ohms resistance to ground?		
Were Sound Powered Call Signal Stations (growlers) inoperative, corroded, damaged or missing parts?		
Were Sound Powered Jackboxes improperly labeled, corroded, damaged, or missing parts?		
	<b>(TEST / INSPECT) ALARM SYSTEMS</b>	
<b>COMPONENT/SYSTEM</b>	<b>PROPOSED PROCEDURE</b>	<b>ACCEPTED PROCEDURE</b>
Test alarm switchboards and panels.		
Were any alarm and warning systems inoperative or missing parts?		
Were Air Flow Alarms operating properly, was the alarm set point properly set, and was the alarm set point posted at the alarm panel?		
	<b>(INSPECT) ORDER/INDICATING/METERING SYSTEMS</b>	
<b>COMPONENT/SYSTEM</b>	<b>PROPOSED PROCEDURE</b>	<b>ACCEPTED PROCEDURE</b>
Were Tank Level Indicators (TLI's) out of calibration or inoperative?		
Were valve position indicator circuits misadjusted or inoperative?		
Were there missing or inoperative salinity cells?		

<b>ELECTRICAL (EL)</b> <b>POST-UNDERWAY</b> <b>AGER 2</b>		
	<b>AUTOMATIC BUS TRANSFER EQUIPMENT</b>	
<b>COMPONENT/SYSTEM</b>	<b>PROPOSED PROCEDURE</b>	<b>ACCEPTED PROCEDURE</b>
Test all Combat Systems ABTs during mast inspection.		
	<b>OPEN AND INSPECT AS REQUIRED BY THE INSPECTION</b>	

<b>MAIN PROPULSION PRE-UNDERWAY PHASE AGER 2</b>			
2331	MAIN ENGINE		
Component/Sub-Component	Proposed Procedure	Accepted Procedure	
Inspect Engine Sump Level			
Inspect Turbocharger Sump Level			
Inspect Rocker Arm Sump Level			
Inspect Calibration and Indicators			
Test Blow In Damper			
Inspect Filters, Gaskets, and Frames			
Inspect Start Air Lubricator Oil Level			
Test Bypass and Waste Gate Operation			
Inspect Governor Lube Oil Level			
Inspect Lube Oil Sample			
Inspect J/W Expansion Tank Level			
Inspect Relief Valves			
Inspect for Exhaust Leaks			
Inspect Lube Oil Standby Pump			
Inspect Flange Shields			
Inspect J/W Standby Pump			
Inspect Zinc Anodes			
Test Lube Oil Sequencing			
Test Rocker Lube Oil Sequencing			
Test Prelube Pump			
Test Jacket Water High Temp Alarm			
Test Lube Oil Filter High DP Alarm			

2331	MAIN ENGINE		
Component/Sub-Component	Proposed Procedure	Accepted Procedure	
Test Remote Shutdown			
Test Local Shutdown			
Test Low Lube Oil Shutdown			
Test Low Start Air Alarm			
Test Local Pneumatic Start			
Test ASW Emergency Cooling			
Test Raw Water Alarm			
Test Barring Device Interlock			
Test Low Control Air Pressure Alarm			
Test Overspeed Trip			
Inspect Governor and Fuel Linkage for Binding			

2411	REDUCTION GEARS		
Component/Sub-Component	Proposed Procedure	Accepted Procedure	
Inspect Sump Level and Lube Oil Condition			
Inspect Gear Teeth, Lube Oil Spray Pattern, Casing Interior			
Inspect Attached LO Pump Angle Drive Gear			
Inspect Oil Flow in SFI's			
Inspect Temperature Gauges			
Inspect Casing Exterior			
Inspect Vent Fog Precipitator			
Test Shaft Turning Gear and Locking Device			
Test Attached LO Pump Engage/Disengage			
Test Attached CRP/CPP Pump Engage/Disengage			
Test Propulsion Control Interlocks			

2411	REDUCTION GEARS	
Component/Sub-Component	Proposed Procedure	Accepted Procedure
Test Clutch and Brake Interlocks		
Test Clutch and Brake Low Pressure Alarms		
Inspect Dehumidifier		
Inspect Security Devices		
Inspect Piping Systems		
Inspect Flange Shielding		

2990	LINE SHAFT BEARINGS	
Component/Sub-Component	Proposed Procedure	Accepted Procedure
Inspect/Sample lube oil		
Inspect Sump Drain Valve		
Inspect Seals		
Inspect Thermometers		
Inspect Lubricator		
Inspect Dip Stick		
Inspect Lock Wires		
Inspect Bearing Depth Mic Surface		

2430	STERN TUBE SEALS	
Component/Sub-Component	Proposed Procedure	Accepted Procedure
Gauges		
Cooling Water Piping		
Cooling Water Strainer/Filter		
Test Cooling Water Low Flow Alarm		
LP Air Supply		

2430	STERN TUBE SEALS	
Component/Sub-Component	Proposed Procedure	Accepted Procedure
LP Piping/Hoses/Fittings		
CO2/N2 Piping/Fitting		
Test Inflatable Seal		
Emergency Flax Packing Kit		
Backing Ring		

2451	CRP/CPP	
Component/Sub-Component	Proposed Procedure	Accepted Procedure
Inspect HOPM		
Inspect Flex Hoses		
Inspect Piping		
Inspect Gages		
Inspect Flange Shields		
Inspect Sump Level		
Inspect Oil Condition		
Verify Calibration between Consoles and OD box		
Test Slew Rate, Command Pitch Mismatch Alarm		
Test Emergency Pitch Pump		
Inspect Attached CRP Pump		
Inspect Mechanical Seal		
Test Electric CRP Pump		
Inspect Motor, Pump		
Inspect Pump, Motor Driven		
Inspect Mechanical Seal		
Inspect Controller, Motor		

2620	LUBE OIL SYSTEMS	
Component/Sub-Component	Proposed Procedure	Accepted Procedure
Purifier		
- Test Purifier operation		
- Inspect Motor, Pump		
- Inspect Heater		
- Inspect Motor Controller		
- Inspect Purifier		
Test MRG Lube Oil Sequencing		
Test MRG Electric Lube Oil Pump		
Test MRG Attached Lube Oil Pump		
Test /Inspect Lube Oil Strainer Baskets and Enclosures		

2610	FUEL OIL SYSTEMS	
Component/Sub-Component	Proposed Procedure	Accepted Procedure
Purifier		
- Test Purifier operation		
- Inspect Motor, Pump		
- Test Pump, Fuel Oil		
- Inspect Motor Controller		
- Inspect Purifier		
Inspect Service Pump Motor Controller		
Test Service Pumps		
Test Fuel Oil Service Tanks for Water		
Test Service Tank Suction Valves		
Test Service Tank Recirc Valves		
Test Quick Closing Valves		

2521	CONTROLS	
Component/Sub-Component	Proposed Procedure	Accepted Procedure
Test EOT Indicator		
Test EOCC Alarms and Indicators		
Test Eng LOSP Alarms and Indicators		
Test Propeller LOSP Alarms and Indicators		
Inspect Bell Logger		
Test EOT Wrong Direction Alarm		
Test Console Self-Checks		
Inspect Torsionometer and verify calibration data		

1130	HULL STRUCTURE	
Component/Sub-Component	Proposed Procedure	Accepted Procedure
Inspect Bilges/Angle Irons		
Inspect Deck Plates		
Inspect Equipment Foundations and resilient mounts		
Inspect Paint and Preservation		
Inspect Pipe Brackets/Hangers		
Inspect Lighting		

ICAS		
Component/Sub-Component	Proposed Procedure	Accepted Procedure
Verify operational status of each workstation	ICAS Tech Manual	
Verify number of required portable data terminals (PDT) and that they are operational	ICAS Tech Manual	
Verify number of required portable diagnostic aids (PDA) and that they are operational	ICAS Tech Manual	
Are any critical system errors shown in the system log?	ICAS Tech Manual	
Ensure data for at least two routes from actual rounds	ICAS Tech Manual	
Ensure data from Data Acquisition devices is being received as required	ICAS Tech Manual	
Verify Demand Data is received and processed accurately	ICAS Tech Manual	
Verify database data is received and processed accurately	ICAS Tech Manual	
Ensure router connections are operating properly	ICAS Tech Manual	
Ensure remote demand data and database data are available to be viewed.	ICAS Tech Manual	
Verify all required system links are available	ICAS Tech Manual	
Verify all ICAS printers are operational	ICAS Tech Manual	
Verify picture book is available for vibration checks	ICAS Tech Manual	
Verify vibration data is being taken per PMS	ICAS Tech Manual	
Verify vibration disc are installed on all equipment	ICAS Tech Manual	
Conduct vibration surveys on selected equipment during the full power demonstration	ICAS Tech Manual	
Inspect all cabinet air filters	MIP 2020 (M-3)	
Inspect all ICAS computer equipment	MIP 2020 (A-1R)	
Inspect computer internal shocks and fans	MIP 2020 (M-3)	

MAIN PROPULSION UNDERWAY PHASE AGER 2		
TEAM ARRIVAL		
Component/Sub-Component	Proposed Procedure	Accepted Procedure
Check applicable equipment for correction of deficiencies.		
Tour space, ensure ready for sea.		

DEMONSTRATIONS		
Component/Sub-Component	Proposed Procedure	Accepted Procedure
Demonstrate Full Power ahead (1 hour)	PMS/EOSS/POG/9094.1B	
Demonstrate Quick Reversal Astern	POG/Full Power Memo/EOSS	
Demonstrate Quick Reversal Ahead	POG/Full Power Memo/EOSS	
Demonstrate fuel oil purifier (s) operation	EOSS/PMS	
Demonstrate purifier (s) emergency stop capability	EOSS/PMS/Tech manual	